Reviewer's report

Title: Expression of EIF2C1-4 and PIWIL1-4 in human colon carcinoma with tissue microarray

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Reviewer: Helge Taubert

Reviewer's report:

The manuscript submitted by Li and coworkers investigates the expression of EIF2C1-4 and PIWIL1-4 in human colon carcinoma with tissue microarray and correlates the expression levels with the prognosis of colon cancer patients. The subject of this manuscript is of high scientific interest; however, there are major concerns before suggesting acceptance of this manuscript.

Major Compulsory Revisions

The authors do not provide clinical data of their colon cancer patients at all. The manuscript needs data for: age, sex, histological type, histological grade, Duke stage, lymph node stage, distant metastases, observation time, survival. Therefore it is not possible to evaluate their conclusions as f. e. significant correlation between positive expression of E12C2, EIF2C3, EIF2C4, and PIWIL4 and lymph node metastasis. Furthermore, since it is not described which histological types of colon lesions were studied a correlation between histological types and expression of EIF2C1 and PIWIL2 can not be stated.

On page 5 it is reported that each antibody was validated by ELISA and Western blot analysis, however, no reference is given or any figure is shown. The authors have to show at least Western blots for each protein. What were the positive and negative controls?

Minor Essential Revisions

The article needs a native speaker for revision.

Several sentences need urgently to be revised:

Abstract: Furthermore, Logistic regression analysis revealed that the risk factors of colon cancer were the positive expression of EIF2C1 and PIWIL2. There can be a correlation but an expression can not be absolutely the risk factor itself.

Discussion: Perhaps through RNAi-related pathways or possibly also through distinct mechanisms, AGO subfamily members have an important role in colonic tumorigenesis. The authors have only data for tumor progression (lymph node metastasis) but not for tumorigenesis.

Discussion: ... we observed that positive expression of EIF2C1 and PIWIL2 were independent predictors of colon cancer. A protein expression can not be the
predictor of a cancer type!

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests.